



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Eilichi Ibata et al. : Art Unit: 2834  
Serial No.: 10/017,446 : Examiner: H. Elkassabgi  
Filed: December 14, 2001 :  
For: MICRO-MOTOR AND APPARATUS :  
USING THE SAME MOTOR :

**PRELIMINARY AMENDMENT**

Assistant Commissioner for Patents  
Washington, D.C. 20231

S I R :

Prior to examination, please amend the above-identified application as follows:

**IN THE CLAIMS:**

Please cancel claims 3, 7, 11, and 15.

Please replace claims 1, 5, 9 and 13 with the following amended claims:

1. (Amended) A motor comprising:

(a) a cylindrical frame made of ferromagnetic material;

(b) a pipe fitted in and disposed within said frame concentrically at a fitted section of the frame, an outer diameter of the pipe being larger than an inner diameter of the frame at the fitted section, the difference between the inner diameter of the frame at the fitted section and an outer diameter of the pipe being between 0  $\mu\text{m}$  and 20  $\mu\text{m}$ ;

(c) a sintered bearing press-fitted into said pipe;

(d) a cylindrical magnet fixed on an outer wall of said pipe at an inner wall of said magnet; and

(e) a cylindrical coil facing said magnet via an annular space,  
wherein said frame and said pipe are welded at the fitted section.

5. (Amended) A motor comprising:

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